Formation of Electroplate Solder on An Organic Circuit Board for Flip Chip Joints and Board to Board Solder Joints

ABSTRACT

A method of fabricating electroplate solder on an organic circuit board for forming flip chip joints and board to board solder joints is disclosed. In the method, there is initially provided an organic circuit board including a surface bearing electrical circuitry that includes at least one contact pad. A solder mask layer that is placed on the board surface and patterned to expose the pad. Subsequently, a metal seed layer is deposited by physical vapor deposition, chemical vapor deposition, electroless plating with the use of catalytic copper, or electroplating with the use of catalytic copper, over the board surface. A resist layer with at least an opening located at the pad is formed over the metal seed layer. A solder material is then formed in the opening by eletroplating. Finally, the resist and the metal seed layer beneath the resist are removed.